

REMARKS

Status of the Claims

Claims 1-11 and 13-27 remain pending in this application, Claims 1 and 3 having been amended to delete a portion of a recitation from Claim 3 and include the recitation in Claim 1 and Claim 9 having been amended to generally include the recitation of Claim 12, Claims 12 and 28-32 having been canceled in this response, without prejudice, subject to applicant's right to file a divisional application directed to the subject matter thereof during the pendency of the present application.

Allowable Subject Matter

The Examiner has indicated that Claims 22-27 are allowed.

Claim Objections

The Examiner has objected to Claims 3 and 11-14 as being dependent upon a rejected base claim, but indicated that they would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims.

With respect to Claim 3, the Examiner has indicated his reasons for objecting to the claim (i.e., the reasons it would be allowed if rewritten in independent form), as its recitation of the radial area of the cue component comprising a sub-area of non-detectable material that is located at a first predefined radius from the center of the radial area wherein the sub-area represents a start bit to indicate a start location from which the code should be read.

Accordingly, since dependent Claim3 depends directly from independent Claim 1, applicant has amended independent Claim 1 to generally include the recitation of step (a) of Claim 3, wherein step (a) generally corresponds to the portion cited by the Examiner as being novel and non-obvious.

With respect to Claim 11 and the chain of dependency for it, the Examiner has indicated his reasons for objecting to the claim as pertaining to the recitation of producing a normalized image from the reflection of the IR light to compensate for a non-uniformity and using this image to detect the binary elements based on a second light intensity threshold and producing a binarized image from the normalized image based on a predefined first light intensity threshold and using this image to determine the cue component.

1 With respect to Claim 12 and the chain of dependency for it, the Examiner has indicated the
2 patentable subject matter pertains to determining an object identifier that is associated with the value
3 of the two-dimensional identifier.

4 With respect to Claim 13 and the chain of dependency for it, the Examiner has indicated that
5 the patentable subject matter pertains to detecting that a sub-area of the radial area that makes up the
6 cue component is missing at a first predefined radius from a center of the radial area wherein the sub-
7 area represents a start bit that determines where the beginning of the code portion is to be located and
8 detecting the binary elements along an arc at a second predefined radius wherein the beginning of the
9 code portion starts wherein the arc is concentric relative to the cue.

10 With respect to Claim 14 and the chain of dependency for it, the Examiner has indicated that
11 the patentable subject matter pertains to determining that the cue component comprises a square with
12 dimensions substantially equal to predefined dimensions of a die and determining the orientation of
13 the cue by rotating a square template until it aligns with the cue wherein the binary elements are at a
14 predefined location within the cue corresponding to a three-by-three grid of possible spots of the die
15 aligned with the orientation of the cue.

16 Accordingly, since dependent Claims 12-14 depend directly from independent Claim 9,
17 applicant has amended independent Claim 9 to generally include the recitation of Claim 12.

18 The Examiner has objected to Claim 21 under 37 C.F.R. § 1.75(c) as being of improper
19 dependent form for failing to further limit the subject matter of a previous claim. The Examiner
20 explains that Claim 21 is a memory medium while Claim 9 is a method claim and Claim 21 does not
21 contain any additional method steps from Claim 9 and therefore does not further limits its parent
22 claim.

23 Applicant respectfully disagrees with this objection, because it is well established that a
24 dependent claim in this form is permitted to refer to an independent method claim. Claim 21 is a
25 dependent claim that relates to the method of independent Claim 9, by reciting a memory media
26 having computer-executable instructions for carrying out the steps of the method claim. Therefore, it
27 further limits the method claim by reciting that machine instruction for performing these steps are
28 recorded on a specific media. There are many examples of U.S. Patents that include this claim form.
29 In the experience of applicant's attorney, the U.S. Patent and Trademark Office has determined that
30 this claim form is acceptable. Applicant's attorney respectfully suggests that the Examiner discuss

1 this matter with his Supervising Patent Examiner, to learn more about the position of the U.S. Patent
2 and Trademark Office regarding this claim form. Accordingly, the objection of Claim 21 should be
3 withdrawn.

4 Claims Rejected under 35 U.S.C. § 103(a)

5 The Examiner has rejected Claims 1, 9, and 21 as being unpatentable over He et al. (U.S.
6 Patent No. 6,340,119, hereinafter referred to as "He"), in view of Department of Defense Logistics
7 Automatic Identification Technology.

8 The Examiner has rejected Claims 2 and 10 as being unpatentable over He and the
9 Department of Defense Logistics Automatic Identification Technology, in view of U.S. Patent
10 Publication No. 2002/0006786 (Mine).

11 Applicant requests that the Examiner withdraw these rejections in view of the amendment to
12 the claims entered above and for the reasons discussed below.

13 In the interest of reducing the complexity of the issues for the Examiner to consider in this response,
14 the following discussion focuses on independent Claims 1 and 9. The patentability of each dependent claim
15 is not necessarily separately addressed in detail. However, applicant's decision not to discuss the
16 differences between the cited art and each dependent claim should not be considered as an admission that
17 applicant concurs with the Examiner's conclusion that these dependent claims are not patentable over the
18 cited references. Similarly, applicant's decision not to discuss differences between the prior art and every
19 claim element, or every comment made by the Examiner, should not be considered as an admission that
20 applicant concurs with the Examiner's interpretation and assertions regarding those claims. Indeed,
21 applicant believes that all of the dependent claims patentably distinguish over the references cited.
22 However, a specific traverse of the rejection of each dependent claim is not required, since dependent claims
23 are patentable for at least the same reasons as the independent claims from which the dependent claims
24 ultimately depend.

25 Patentability of Independent Claim 1

26 Applicant has amended independent Claim 1 to include the portion of the recitation of
27 dependent Claim 3 which the Examiner has indicated comprises patentable subject matter. Thus,
28 independent Claim 1 as amended patentably distinguishes over the prior art, and applicant requests
29 that the Examiner withdraw the rejection of this claim.

Claims 2-8 ultimately depend from independent Claim 1. Because dependent claims inherently include all of the steps or elements of the independent claim from which the dependent claims ultimately depend, dependent Claims 2-8 are patentable for at least the same reasons discussed above with regard to independent Claim 1. Therefore, the rejection of dependent Claims 2-8 under 35 U.S.C. § 103(a) as being unpatentable over the cited art should be withdrawn.

Patentability of Independent Claim 9

Applicant has amended independent Claim 9 to include the recitation of dependent Claim 12, which the Examiner has indicated comprises patentable subject matter. Thus, independent Claim 9, as amended, patentably distinguishes over the prior art, and applicant requests that the Examiner withdraw the rejection of this claim.

Claims 10-11, and 13-21 ultimately depend from independent Claim 9. Because dependent claims inherently include all of the steps or elements of the independent claim from which the dependent claims ultimately depend, dependent Claims 10-11, and 13-21 are patentable for at least the same reasons discussed above with regard to independent Claim 9. Therefore, the rejection of dependent Claims 10-11, and 13-21 under 35 U.S.C. § 103(a) as being unpatentable over the cited art should be withdrawn.

In view of the amendments entered above, it will be apparent that the claims remaining in this application define a novel and non-obvious invention and are patentable. Accordingly, this application should be passed to issue without delay. Should any further questions remain, the Examiner is invited to telephone applicant's attorney at the number listed below.

Respectfully submitted,

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